

Split

Work Order ID 79923-2

February-08-12 9:23:56 AM

79923

PRELIMINARY ISSUE

Page 1

Item ID: D4456-4 *

Accept

Revision ID: PRELIM

N19000040100

Setup Start

NS1

Item Name: Aft Raingutter, RH

Stop

NS2

Start Date: 17/02/2012 Start Qty: 20.00

20

Cust Item ID:

Required Date: 17/02/2012 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: M.C.J

Date: 12/02/08 Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4456

A

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg (134156-38)

6060-030

Dwg Rev: A

Prog Rev: A

2-Deburr if necessary

1312-2-29

25

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

1312-2-29

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.00

Quality Control

5126029

cont
425

Work Order ID 79923

February-08-12 9:23:56 AM

79923

Page 2

Item ID: D4456-4

Accept

N900040100

Setup Start

NS1

Revision ID: PRELIM

Item Name: Aft Raingutter, RH

Stop

NS2

Start Date: 17/02/2012 Start Qty: 20.00

20

Cust Item ID:

Required Date: 17/02/2012 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

0.00

130

NC BRAKE

Small Fab

Memo

0.00

Small Fab

1- Form as per dwg using DT9789
2- After forming cut off tabs as per dwg

(10) FF 12-03-21

140

QC5- Inspect part completeness to step on W/O

0.00

140

QC

Memo

0.00

Quality Control

8/2/3/22

(40)
4

144

Outsource process - Heat Treat

0.00

144

Outsource1

Memo

0.00

Outsource process - Heat Treat

memo

P10/6523

CL 12/03/22 10

Work Order ID 79923

February-08-12 9:23:56 AM

79923

Page 3

Item ID: D4456-4

Accept

N900040100

Setup Start ***NS1***

Revision ID: PRELIM

Item Name: Aft Raingutter, RH

Stop ***NS2***

Start Date: 17/02/2012 Start Qty: 20.00

20

Cust Item ID:

Required Date: 17/02/2012 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

146

Receive & Inspect for Damage & Mat'l Certs

0.00

146

Packaging

Memo

0.00

Packaging

11/2/30 (10)

150

Chemical Conversion Coat per QSI005 4.1

0.00

150

HandFinish

Memo

0.00

Hand Finishing

all 8/2/30

(10)

10 BL 12-4-2.

160

QC3- Inspect Part Finish

0.00

160

QC

Memo

0.00

Quality Control

10 x 2 m/h 12/04/02

Work Order ID 79923***79923***

Page 4

Item ID: D4456-4

Accept

N900040100Setup Start ***NS1***

Revision ID: PRELIM

Item Name: Aft Raingutter, RH

Stop ***NS2***

Start Date: 17/02/2012 Start Qty: 20.00

20

Cust Item ID:

Required Date: 17/02/2012 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170

Identify as per dwg & Stock Location: _____

0.00

170

Packaging

Memo

0.00

Packaging

12/4/12 st (10r)

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

MCJ 12/04/02

mo 12/04/02

~~POSITIVE RECALL~~

EFFECTIVE _____ AUTH _____

RELEASED _____ DATE _____

Picklist Print

February-08-12 9:24:00 AM

Page 1

Work Order ID: 79923

79923

Parent Item: D4456-4

D4456-4

Parent Item Name: Aft Raingutter, RH

Start Date: 17/02/2012

Required Date: 17/02/2012

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP REV:A 11.11.21 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M60610S.032		Purchased		No		100	sf	41.0000	0.125	2.631579			

M60610S 032

6061 0 SHEET .032

**

BIR-2-29

Location

Loc Qty

Loc Code

MAT021

41

119686

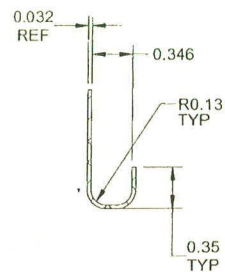
41

120777

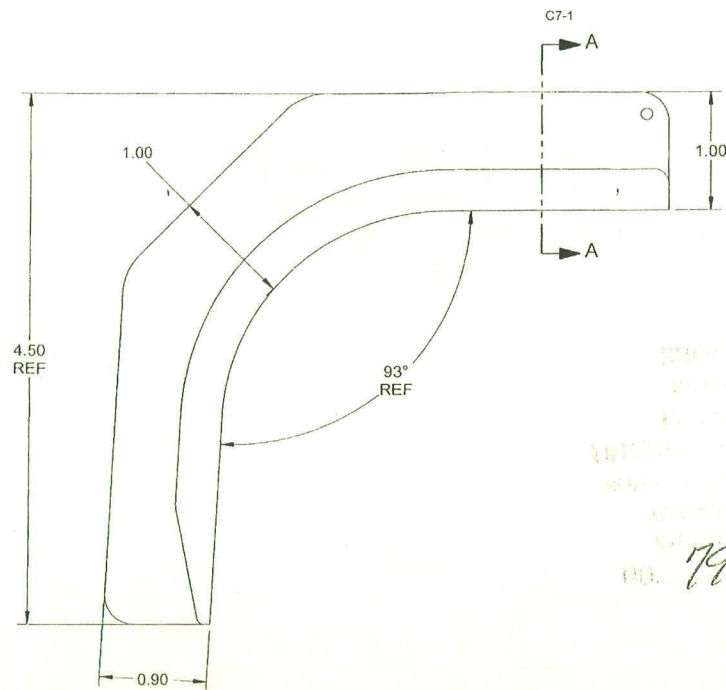
25

6061.032 TO

120777



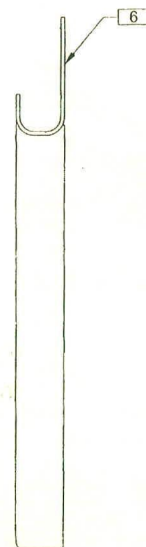
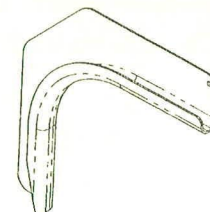
SECTION A-A D4--1



D4456-1 FWD RAINGUTTER, LH

NOTES:

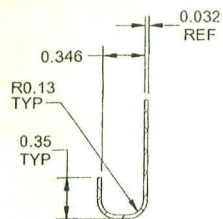
- 1) MATERIAL: MAKE FROM D4456-1F FLAT PATTERN
HEAT TREAT TO 6061-T6 CONDITION AFTER FORMING
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.04 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING



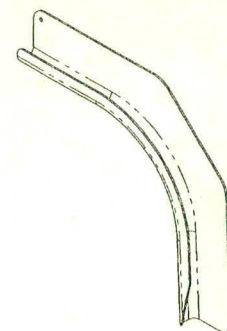
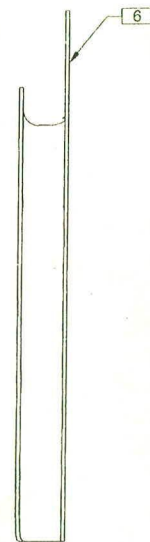
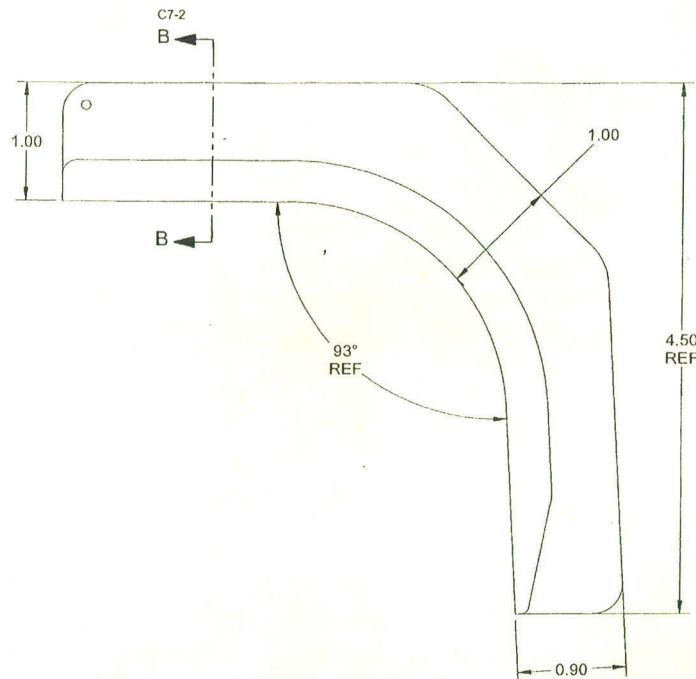
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R 2012-01-17
JNH

A		NEW ISSUE		RF	11.11.17
REV.	DESCRIPTION			BY	DATE
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DRAWN	RF				
CHECKED	RF		DRAWING NO.	REV. A	
MFG. APPR.	RF		D4456	SHEET 1 OF 8	
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8 7 6 5 4 3 2 1



SECTION B-B D6-2



70923

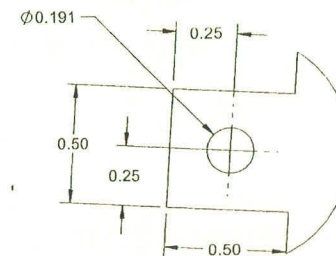
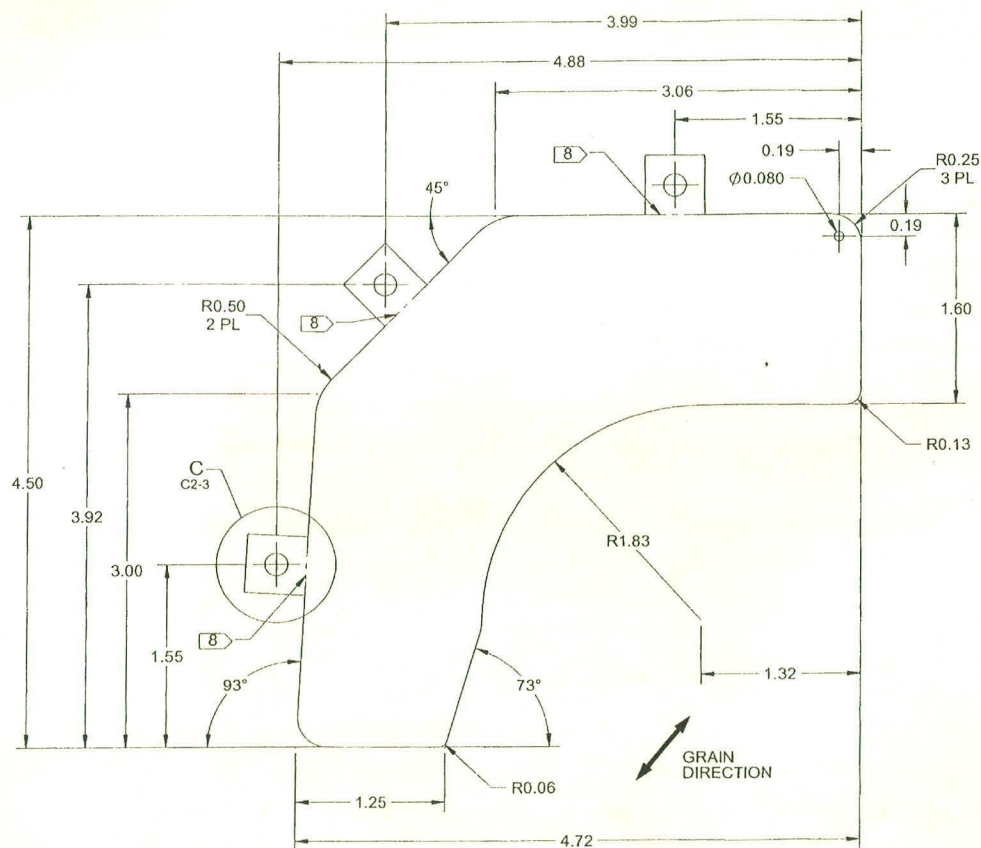
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2012-01-17
WNP

D4456-2 FWD RAINGUTTER, RH

- NOTES:**
- 1) MATERIAL: MAKE FROM D4456-1F FLAT PATTERN
HEAT TREAT TO 6061-T6 CONDITION AFTER FORMING
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
 - 7) WEIGHT: 0.03 lbs
 - 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING

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MFG. APPR.	RF	SHEET 2 OF 8	
APPROVED	RF	TITLE	SCALE
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8 7 6 5 4 3 2 1



DETAIL C C7-3
TYP C6-3
D5-3

79923

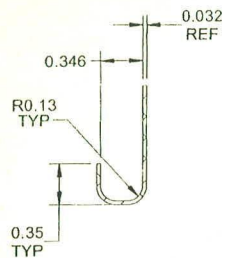
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2012-01-17
JUN

D4456-1F FWD RAINGUTTER FLAT PATTERN

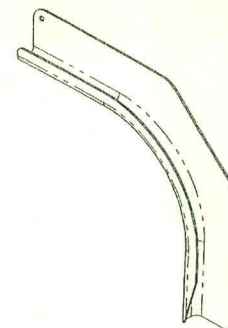
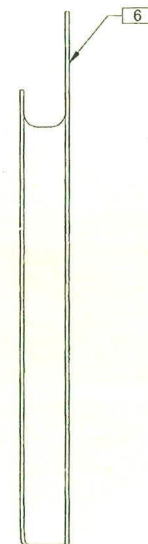
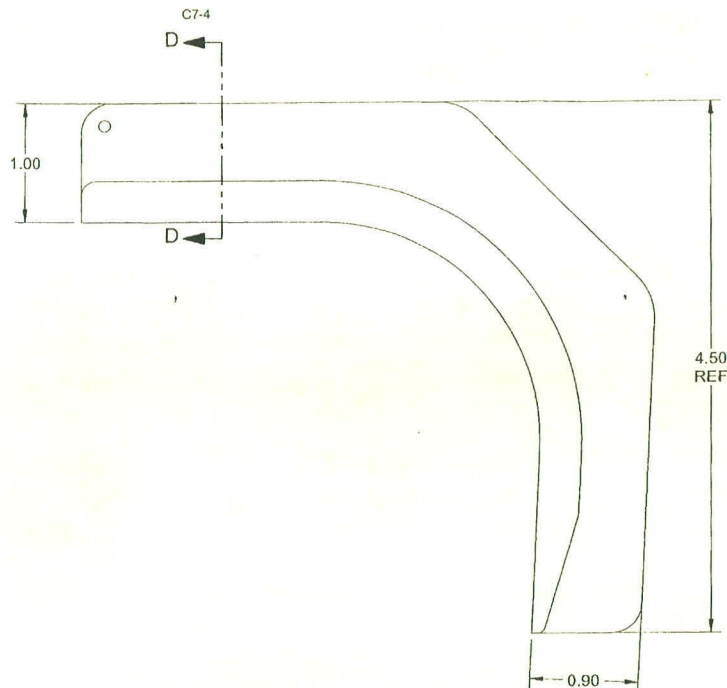
NOTES:

- 1) MATERIAL: 6061-O ALUMINUM SHEET 0.032 THICK
PER AMS QQ-A-250/11 OR AMS 4025
REF DART SPEC M6061-OS.032
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.04 lbs

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MFG. APPR.		D4456	SHEET 3 OF 8
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SECTION D-D C6-4



79923

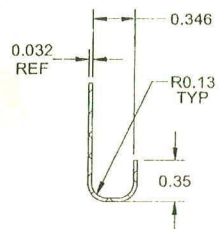
D4456-3 AFT RAINGUTTER, LH

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2012-01-17

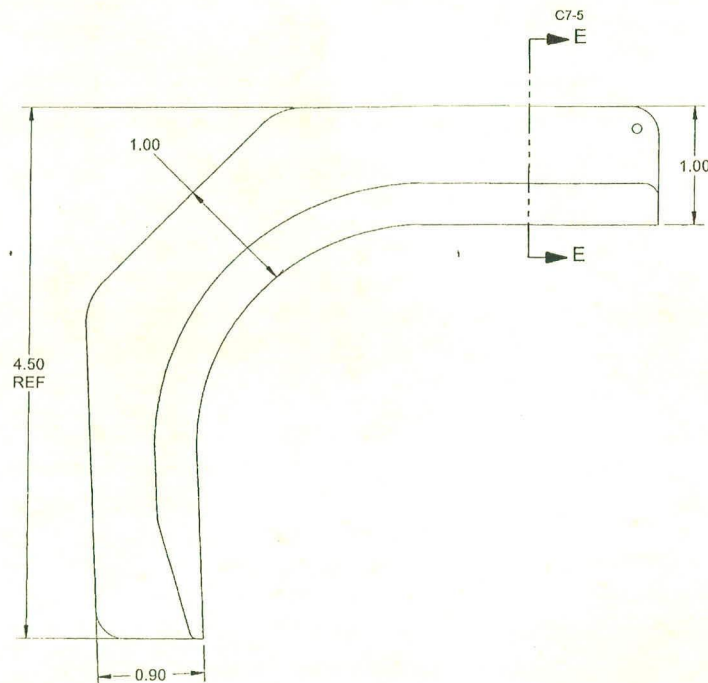
NOTES:

- 1) MATERIAL: MAKE FROM D4456-3F FLAT PATTERN
HEAT TREAT TO 6061-T6 CONDITION AFTER FORMING
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.04 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING

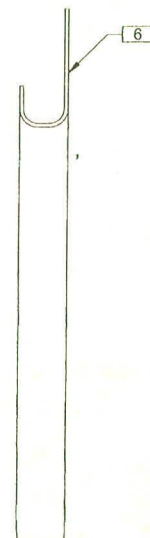
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SECTION E-E D4-5



D4456-4 AFT RAINGUTTER, RH



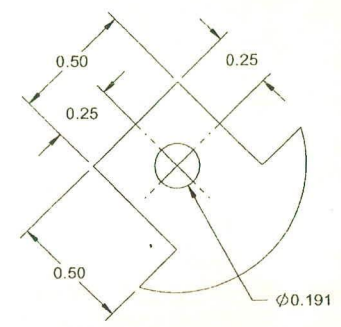
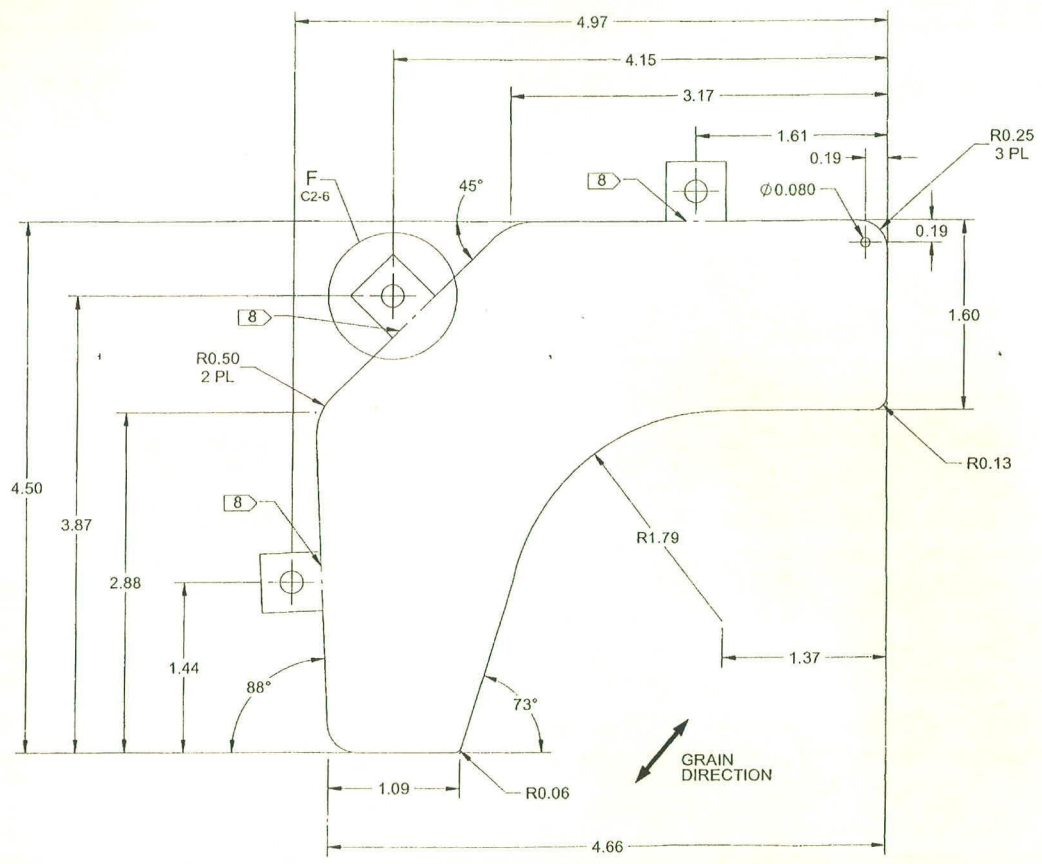
79923

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2012-01-17
JW

NOTES:

- 1) MATERIAL: MAKE FROM D4456-3F FLAT PATTERN
HEAT TREAT TO 6061-T6 CONDITION AFTER FORMING
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.04 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING

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DETAIL F TYP B7-6 C6-6 D5-6

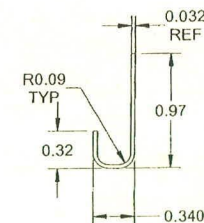
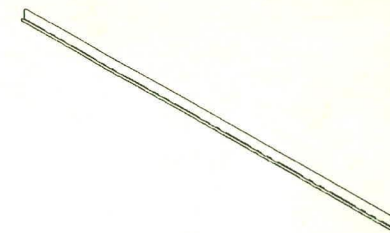
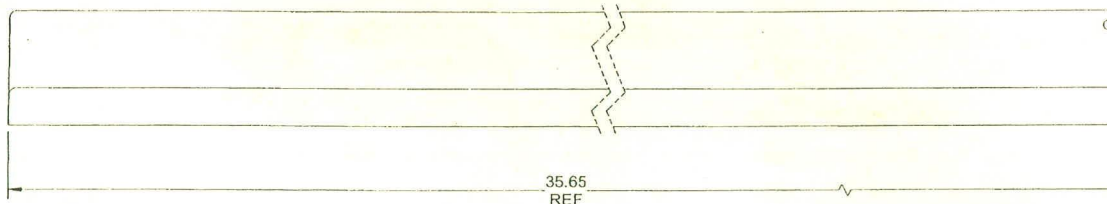
79923

RELEASED
2012-01-17
JMP

D4456-3F AFT RAINGUTTER FLAT PATTERN

- NOTES:**
- 1) MATERIAL: 6061-O ALUMINUM SHEET 0.032 THICK
PER AMS QQ-A-250/11 OR AMS 4025
REF DART SPEC M6061-OS.032
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 0.04 lbs

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	KENT, WA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4456	SHEET 6 OF 8
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79923

D4456-5 CENTER RAINGUTTER

RELEASED
11-2012-01-17
JUN

NOTES:

- 1) MATERIAL: MAKE FROM D4456-5F FLAT PATTERN
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.17 lbs
- 8) TRIM TABS ON THE HIDDEN LINES AFTER FORMING

DESIGN	RF	DART AEROSPACE USA, INC.	
		KENT, WA	
DRAWN	RF	DRAWING NO.	REV. A
CHECKED	<i>[Signature]</i>	D4456	SHEET 7 OF 8
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METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Recu de Livraison

Order	Shipper	Shipping Seq.
174695	1	59687

Shipped Complete

Customer **215**
DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

Shipped To:
DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

Purchase Order Number	Customer Shipper No.	Material Type	Order Date	Carrier
PO16523		AL-6061	2012/3/23	FEDEX
Quantity	Part No. / Part Name / Part Description			Pounds

60 D4456-1
(10) RAINGUTTER

(10) D4456-2 FWD
RAINGUTTER

(10) D4456-3 AFT
RAINGUTTER

(10) D4456-4 FWD
RAINGUTTER

(20) D4456-5 CENTER
RAINGUTTER

CONTENANT: 1 BOÎTE DE CARTON

Container Type	# Of Containers	Container Comments
BOITE DE CARTON	1	

PACKING	
----------------	--

Quantity Shipped: 60
Pounds Shipped: 5,00
Quantity Remaining: 0
Pounds Remaining: 0,00

Quantity Shipped: 60

Pounds Shipped: 5,00

Signature:

Date:

Shipped ON: 2012/03/28



Metcor Inc.

Metcor Inc.
560, boul. Arthur-Sauvé
St-Eustache (Québec) J7R 5A8
Tél. : 450 473-1884
Télécopieur/Fax administration : 450 491-5495
Télécopieur/Fax production : 450 491-5454

Certificat de Conformité
Certificate of Compliance

BON DE TRAVAIL	CHARGEMENT
order	load
174695	1

CLIENT / client
DART AEROSPACE
271 ABERDEEN
FAVKESSUR

DN KSA 1KT

LIVRE À / shipped to:
DART AEROSPACE
(271 ABERDEEN)
FAVKESSUR

DN KSA 1KT

NO. DU CLIENT	BON DE LIVRE / BON D'ACHAT	MATÉRIEL	CODE DE TRAITEMENT	NUMÉRO DE LOT
customer no.	customer shipper no.	material	matl heat code	lot number
174695		AL-8081		

SPÉCIFICATIONS DU PROCÉDÉ

processing specifications

ED. AVEAL

SINGLE - GING TO CONDITION T8

EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXECUTÉS / performed	RÉSULTATS DE TESTS / results
CONDUCTIVITÉ	40 - 50 %ACS	80	47 - 48 %ACS
DURETÉ	85 HREW MIN	80	91 - 93.5 HREW
			DURETÉ MESURÉE EN HR/15T M=72.5-80.5 HR/15TW

QUANTITÉ	POIDS	DESCRIPTION DES PIÈCES
quantity	weight	parts description
80	5	D4458-1 (10) RAINGLITTER
		(10) D4458-2 FWD RAINGUTTER
		(10) D4458-3 AFT RAINGUTTER
		(10) D4458-4 FWD RAINGUTTER
		(20) D4458-5 CENTER RAINGUTTER
		CONTENANT: 1 BOÎTE DE CARTON

COMMENTAIRES / comments

Signature (METCOR)

